

## GeneralAire® Model 5500 Steam Cylinder Replacement Instructions

The humidifier and the cylinder contain live electrical components and very hot surfaces. All service and maintenance operations must be carried out by qualified personnel who are aware of the necessary precautions. Before performing any operations on the cylinder, make sure that the humidifier is disconnected from the power supply. Remove the cylinder from the humidifier only after having drained it completely.

### Conductivity

Conductivity measure the amount of minerals in the water; on the new version of the GeneralAire® Model 5500, a cylinder has been designed that can be used with conductivity levels between 125 and 1250 µS/cm. This simplifies maintenance.

Steam Cylinder Replacement: Model 55 - GFI #7746 (USA); Model GF-55 (Canada)

### Measuring Water Conductivity

A water sample should be taken from the humidifier supply connection. The water sample can be tested on site by available portable cup or dip style testers. Tester Manufacturers: Hanna Instruments, Oakton Instruments, Myron L. Company, Mettler-Toledo, Denver Instrument Company, and Electro-Chemical Devices, Inc.

### Removing and Cleaning Components



**WARNING:** The cylinder may reach high temperatures. Let it cool down before touching it or wear protective gloves.

#### 1. To Remove the Cylinder

- a) Remove the cover by unscrewing the one screw at the bottom. (Figure 1a)
- b) Completely drain the cylinder, holding the “drain” button until the cylinder is empty.
- c) Turn the humidifier off. **DISCONNECT THE MAIN POWER SUPPLY (AT CIRCUIT BREAKER).**
- d) Remove the blue steam hose from the cylinder. (Figure 1d)
- e) Disconnect the two black cables at the top of the cylinder by pulling the black snap-on cap upwards. Then pull the red-capped sensor cable up and off. (Figure 1e)
- f) Lift up the black cylinder support bracket and lift the cylinder out of the unit and into a bucket to catch residual water from the cylinder. (Figure 1f)

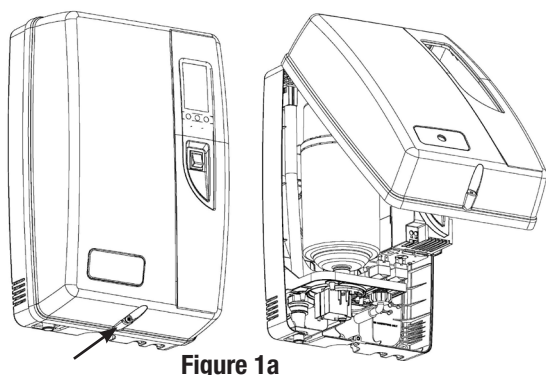


Figure 1a



Figure 1d

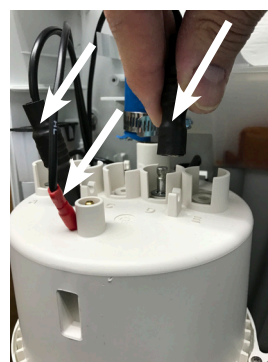


Figure 1e



Figure 1f



**WARNING:** The cylinder may reach high temperatures. Let it cool down before touching it or wear protective gloves.

#### 2. Cleaning the Fill Or Mixing Valve and Drain Pump


- a) With power disconnected, turn the water supply off and disconnect the water supply hose.
- b) Remove the valves and the drain pump by unscrewing the corresponding screws; check the condition of the valve inlet filters.
- c) Clean with solution of vinegar or diluted acetic acid and soft brush.
- d) Rinse parts with fresh water.
- e) Replace any components that show excessive wear or could not be completely cleaned. Ensure that the washer and spring are properly reassembled in the drain pump.

## Reassembling and Restarting


1. Replace any components that were removed for servicing. The O-ring only needs to be replaced if worn, damaged, or lost.

2. Install the new cylinder:

- Perform the same operations as above in reverse order.
- Connect the power cables to the electrodes on the cylinder (Figure 2b), inserting the snap-on caps as shown on the yellow label attached to the cylinder. Make sure the connector is inserted correctly (you will hear a “click” when in place).
- Replace the steam hose to the cylinder and tighten the hose clamp.

 **WARNING:** Ensure that the components, hoses and cylinder are replaced with correct O-rings and gaskets. Open water supply and check for leaks. Ensure that the steam hose clamp is snug, but not over-tightened.

d) Reconnect the power supply.

 **WARNING:** Ensure that the components, hoses and cylinder are replaced with correct O-rings and gaskets. Open water supply and check for leaks. Ensure that the steam hose clamp is snug, but not over-tightened.

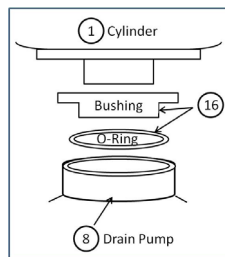




Figure 2b

3. Preclean The New Cylinder:


- Switch the unit off. While pressing and holding both the “reset” and “drain” buttons, switch the unit on. When the “wrench”  symbol on the screen blinks, release the two buttons.
- Press and hold “reset” until the display shows 04.

 **WARNING:** DO NOT confirm any value higher than 04. If 05 or higher is displayed, press “reset” until the display goes back to the normal operating mode and restart from step a).

c) Press the “drain” button for a minimum of 1 second to start the cylinder cleaning cycle. During the cylinder cleaning cycle, the electrodes are power and the cylinder is filled with water until one of the following conditions occurs:

- The level of the water reaches the maximum level sensor
- The phase current is equal to the nominal value
- The cylinder will empty. Two cleaning cycles are recommended. Go back and repeat from step 3.a. After the second cleaning cycle has ended, the humidifier will start normally.

d) Resetting the cylinder hour counter:

- Switch the unit off. While pressing and holding both the “reset” and “drain” buttons, switch the unit on. Continue to hold both buttons until the “wrench”  symbol starts to blink, then release both buttons.
- Press and hold the “reset” button until the value is 03 as shown on the display.
- Press “drain” for a minimum of 1 second to confirm. The hour counter will be reset once the unit resumes normal operation.

e) Final Check:

- Turn the unit off and disconnect the power supply.
- Check for water leaks, and replace the unit cover.
- Reconnect the power and turn the unit on.



**IMPORTANT:** Disposal of the parts of the humidifier:

- The humidifier is made up of metallic and plastic parts.
- All parts must be disposed of according to the local standards on waste disposal.

